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| STAITZIN AND                    |                           | THE DIVENTOR                      | ATTORNEY DOCKET NO.    | CONFIRMATION NO. |
|---------------------------------|---------------------------|-----------------------------------|------------------------|------------------|
| APPLICATION NO. 09/511,991      | FILING DATE<br>02/24/2000 | FIRST NAMED INVENTOR Elise Taylor | 1659.0930000           | 5220             |
|                                 |                           |                                   |                        |                  |
| George P. Kol<br>Time Domain (  | bler<br>Corporation       |                                   | LA, ANH V              |                  |
| 7057 Old Madi<br>Huntsville, AL | son Pike                  |                                   | ART UNIT               | PAPER NUMBER     |
| Hunisvine, AL                   | 33000                     |                                   | 2632                   |                  |
|                                 |                           |                                   | DATE MAILED: 12/19/200 | 2                |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |  | <u>q</u>  |  |  |
|---|--|---|--|--|
|   | Application No.  | Applicant(s)  |  |  |
|   | 09/511,991   | TAYLOR ET AL.   |  |  |
| Office Action Summary   | Examiner   | Art Unit  |  |  |
|   |  | 2632  |  |  |
| The MAILING DATE of this communication ap   | pears on the cover sheet   | with the correspondence address   |  |  |
|   |  |   |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.  after SIX (6) MONTHS from the mailing date of this communication.  If the period for reply specified above is less than thirty (30) days, a re  If NO period for reply is specified above, the maximum statutory period  Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the mailine earned patent term adjustment. See 37 CFR 1.704(b).   | .136(a). In no event, however, mapple of the statutory minimum of the will apply and will expire SIX (6) | y a reply be unless med  f thirty (30) days will be considered timely.  MONTHS from the mailing date of this communication. |  |  |
| 1)⊠ Responsive to communication(s) filed on 04  | 4 September 2002 .   |   |  |  |
| ^ah\⊠   | This action is non-final.  | •   |  |  |
| 2a) Inis action is inval.   | and for formal   | matters, prosecution as to the merits is  |  |  |
| 3) Since this application is in condition for allo-<br>closed in accordance with the practice under<br>the practice under the prac | er Ex parte Quayle, 193  | 5 C.D. 11, 453 O.G. 213.  |  |  |
| Disposition of Claims   |  |   |  |  |
| 4) Claim(s) 1-25 is/are pending in the applicat   | ION.   | 1   |  |  |
| 4a) Of the above claim(s) is/are withd  | rawn from consideration  |   |  |  |
| 5) Claim(s) is/are allowed.   |  |   |  |  |
| 6)⊠ Claim(s) <u>1-25</u> is/are rejected.   |  |   |  |  |
| Claim(s) is/are objected to.  | Latina requiremen  | nt  |  |  |
| 8) Claim(s) are subject to restriction an   | d/or election requiremen   |   |  |  |
| Application Papers  | pipor  |   |  |  |
| 9) The specification is objected to by the Exam   | occupied or h) objected t  | o by the Examiner.  |  |  |
| 9) The specification is objected to by the Email  10) The drawing(s) filed on is/are: a) a  Applicant may not request that any objection to   |  |   |  |  |
| Applicant may not request that any objection to 11) The proposed drawing correction filed on  | is: a)∏ approved l   | o) disapproved by the Examiner.   |  |  |
| 11) The proposed drawing correction filed on  If approved, corrected drawings are required in   | in reply to this Office action   | ı <b>.</b>  |  |  |
| If approved, corrected drawings are required  | e Examiner.  |   |  |  |
| 12) The oath or declaration is objected to by the   |  |   |  |  |
| Priority under 35 U.S.C. §§ 119 and 120  13) Acknowledgment is made of a claim for fo   | reign priority under 35 U  | I.S.C. § 119(a)-(d) or (f).   |  |  |
| 13) Acknowledgment is made of a claim for to  | reight phone, and a  |   |  |  |
| a) ☐ All b) ☐ Some * c) ☐ None of:  | monts have heen receiv   | ed.   |  |  |
| 1. Certified copies of the priority documents have been received.  2. Certified copies of the priority documents have been received in Application No   |  |   |  |  |
| 2. Certified copies of the priority documents of the certified copies of the certified copies of the start the laternation  | ments have been to ear   | e been received in this National Stage  |  |  |
| application from the internation  | - list of the cortified con  | ies not received.   |  |  |
| of a claim for do   | mestic priority under 55   | 0,0,0,0   |  |  |
| a) ☐ The translation of the foreign languaç  15) ☐ Acknowledgment is made of a claim for do   |  |   |  |  |
| Attachment(s)   |  |   |  |  |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-9 3) Information Disclosure Statement(s) (PTO-1449) Paper  | 148) 5)  | Interview Summary (PTO-413) Paper No(s) Notice of Informal Patent Application (PTO-152) Other:                              |  |  |

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## **DETAILED ACTION**

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fullerton et al [US 5,677,927] in view of Schlager et al [US 5,963,130].

Regarding claim 1, Fullerton et al discloses an impulse radio communications system using ultra-wideband impulse radio transmitter 901 uses one or more sub-carriers to communicate intelligent information signal 1020 including digital bits representing voice, data, imagery, or the like, analog signals or complex signals in the form of UWB impulse radio transmitter to a remote UWB impulse radio receiver 903, see Figs. 10-19, 21-24,

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col. 2, lines 11-29, col. 3, lines 1-55, col. 4, lines 1-9, col. 6, lines 36-62, col. 13, lines 54-67, col. 14, lines 1-37, col. 21, lines 28-61, col. 24, line 16-58 and col. 28, lines 1-17. But Fullerton et al fails to disclose the step of obtaining information relating to the entrant within the predetermined area. However, Fullerton et al teaches that the UWB impulse radio communications system is for use in a wide variety of applications, including personal communication systems and in-building communications systems, such as medical and military devices that low power consumption, reuse of available spectrum, channels and cost are four of the main issue, see Fig. 9, col. 1, lines 12-16 and col. 7, lines 10-20. Schlager et al suggests that a self-locating remote monitoring system includes one or more remote monitoring units 402, 552 or 1022, each includes a memory 410, 556 or 1040 for obtaining and storing information related to a person, child, parolee and/or patient under monitored, such as name, ID number, assigned geographic region, room number and/or physiological parameter, see Figs. 13, 18 and 27, col. 13, lines 21-23, col. 21, lines 27-28 and col. 26, lines 33-51. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the remote monitoring unit with data memory of Schlager et al to the UWB impulse radio communications systems because the UWB impulse radio communication systems can be use for personal communications devices and/or medical devices to provide security and assistant to person, child, parolee and/or patient with higher accuracy and reliability of communications there between; and Fullerton et al fails to disclose the step of determining at least one position of the entrant within the predetermined area using UWB impulse radio techniques. However,

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Fullerton et al teaches that the UWB impulse radio communications system is for use in a wide variety of applications, including personal communication systems and inbuilding communications systems, such as medical and military devices that low power consumption, reuse of available spectrum, channels and cost are four of the main issue, see Fig. 9, col. 1, lines 12-16 and col. 7, lines 10-20. Schlager et al suggests that a self-locating remote monitoring system includes one or more remote monitoring units 402 or 1022, which provides or obtains information defining a location of the remote unit 402 or 1022 within a predetermined area/region related to a person, child, parolee or patient carrying that remote unit, see Figs. 13 and 27, col. 3, lines 26-49, col. 13, lines 16-39, col. 21, lines 20-67 and col. 22, lines 1-4. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the UWB impulse radio communications systems of Fullerton et al for remotely monitoring to obtain location or position of a monitored person, child, parolee and/or patient moving within a predetermined area or region in order to provide tracking and protection to that person, child, parolee and/or patient in time such as the remote monitoring systems of Schlager et al because the UWB impulse radio communications systems can be use for personal communications devices and/or medical devices to provide low power consumption, reuse of available spectrum, channels and cost; and The claimed correlation information about the entrant to the at least one position of the entrant is met by the combination of the UWB impulse radio communication system with the remote monitoring/tracking between Fullerton et al and Schlager et al as above,

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where in the location/position and data information of monitored person, child, parolee and/or patient are correlated or matched with each other.

Regarding claim 2, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above.

Regarding claim 3, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above, wherein **Schlager et al** suggests of a keyboard for entering data information and predefined location or region of a person, child, parolee and/or patient, see col. 28, lines 8-31.

Regarding claim 4, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above, wherein the internet is met by the modem 1060 of **Schlager et al** connected to the communication networks, see Fig. 28, col. 22, lines 34-54.

Regarding claim 5, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claims 1, 3 and 4 as above.

Regarding claim 6, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above, and the UWB impulse radio TAG (the remote monitoring unit utilizing of UWB impulse radio communication system)

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Regarding claim 7, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 6 as above.

Regarding claim 8, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 6 as above.

Regarding claim 9, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 6 as above.

Regarding claim 10, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 6 as above.

Regarding claim 11, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 6 as above.

Regarding claim 12, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above, and the theme park is read upon the specific geographic region/area, where a person, child and/or patient is located in a play ground or state park.

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Regarding claim 13, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above, and the shopping mall is read upon the specific geographic region/area, such as person is located in a shopping mall, a grocery or a store.

Regarding claim 14, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above, and the office building is read upon the specific geographic region/area, such as patient is located in a hospital building.

Regarding claim 15, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above, as the parolee is located in a prison area.

Regarding claim 16, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above, and the specific geographic area/region could be a conventional center or public meeting.

Regarding claim 17, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above, wherein the specific geographic area/region could be zoo where parent and children are located.

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Regarding claim 18, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above, wherein the specific geographic area/region could be the museum park.

Regarding claim 19, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above, and the interface is met by the GPS/Navigation receiver 406, the defined geographic region 410, the predetermined position status 414 and 428 of **Schlager et al**, see Fig. 13.

Regarding claim 20, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 19 as above.

Regarding claim 21, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 19 as above.

Regarding claim 22, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 21 as above.

Regarding claim 23, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above, and **Schlager et al** includes the visual alarm 134, see Fig. 3.

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Regarding claim 24, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 19 as above.

Regarding claim 25, all the claimed subject matters are discussed between **Fullerton et al** and **Schlager et al** in respect to claim 1 as above, and including the microprocessor 2406, Fig. 24 of Fullerton et al and the microprocessor 604 of Schlager et al, see Fig. 19, col. 16, lines 53-57.

## Response to Arguments

2. Applicant's arguments filed on 04 September 2002 have been fully considered but they are not persuasive. Because, a new reference of **Schlager et al** is combined with primary reference of **Fullerton et al** to make the rejection smoother, wherein the UWB impulse radio communications systems can be adapted to use on a wide variety of applications including military, personnel and patient for monitoring and/or tracking of a person, a child and/or a patient with both medications and physiological conditions. Therefore, the Final Rejection filed on 05 June 2002 is withdrawn in order to make a new ground of rejection according thereto.

#### Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Beckner discloses a ground penetrating radar system utilizing UWB impulses that approximate differentiated monocycles, wherein each impulse comprises two short [US 5,912,639] positive-going pulses with an intermediary negative excursion. Ross discloses an UWB short range radar system for detecting of targets in clutter [US 6,208,248] including human walkers, crawlers and runners.

Any inquiry concerning this communication or earlier communications from 4. the examiner should be directed to primary examiner Van Trieu whose telephone number is (703) 308-5220. The examiner can normally be reached on Mon-Fri from 7:00 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Danial Wu can be reached on (703) 308-6730.

The office facsimile number is (703) 872-9314.

Primary Examiner

Date: 12/17/02